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Templates for Curves on Tramway

by W. T. Olive C.E.

calculated from the Formula $V = R - \sqrt{R^2 - (\frac{1}{2}C)^2}$

V - Versed sine, or offset at Centre of Chord - 12 feet or 18 feet.

R - rad

Radius of Centre of Road.	Radius of Outer and Inner Rails.		Versed Sine for Chord of 12 feet.	Versed Sine for Chord of 18 feet.	Radius of Centre of Road.	Radius of Outer and Inner Rails.		Versed Sine for Chord of 12 feet.	Versed Sine for Chord of 18 feet.	Radius of Centre of Road.
feet.	feet.	ins.	ins.	ins.	feet.	feet.	ins.	ins.	ins.	feet.
30	32	4¼	6·75	15·32	110	112	4¼	1·92	4·36	260
	27	7¾	7·91	18·08		107	7¾	2·02	4·52	
32	34	4¼	6·35	14·40	120	122	4¼	1·77	3·98	270
	29	7¾	7·37	16·80		117	7¾	1·83	4·14	
34	36	4¼	5·99	13·58	128	130	4¼	1·67	3·74	280
	31	7¾	6·98	15·68		125	7¾	1·73	3·88	
36	38	4¼	5·67	12·85	136	138	4¼	1·57	3·53	290
	33	7¾	6·48	14·71		133	7¾	1·62	3·65	
38	40	4¼	5·39	12·20	140	142	4¼	1·52	3·42	300
	35	7¾	6·11	13·86		137	7¾	1·57	3·54	
40	42	4¼	5·13	11·61	144	146	4¼	1·48	3·32	310
	37	7¾	5·78	13·10		141	7¾	1·53	3·44	
42	44	4¼	4·90	11·08	150	152	4¼	1·43	3·20	316
	39	7¾	5·48	12·43		147	7¾	1·46	3·30	
44	46	4¼	4·68	10·[illegible]	156	158	4¼	1·37	3·07	320
	41	7¾	5·22	11·28		153	7¾	1·41	3·17	
46	48	4¼	4·49	10·14	160	162	4¼	1·33	3·00	324
	43	7¾	4·98	11·26		157	7¾	1·38	3·09	
48	50	4¼	4·31	9·73	164	166	4¼	1·29	2·93	336
	45	7¾	4·76	10·76		161	7¾	1·34	3·01	
50	52	4¼	4·14	9·36	172	174	4¼	1·25	2·80	350
	47	7¾	4·56	10·29		169	7¾	1·28	2·87	
52	54	4¼	4·00	9·01	180	182	4¼	1·19	2·67	364
	49	7¾	4·37	9·88		177	7¾	1·22	2·75	
54	56	4¼	3·85	8·69	188	190	4¼	1·14	2·56	372
	51	7¾	4·20	9·49		185	7¾	1·16	2·63	
56	58	4¼	3·72	8·37	196	198	4¼	1·09	2·46	388
	53	7¾	4·04	9·13		193	7¾	1·11	2·52	
58	60	4¼	3·59	8·10	200	202	4¼	1·06	2·41	396
	55	7¾	3·90	8·80		197	7¾	1·10	2·46	
60	62	4¼	3·48	7·83	204	206	4¼	1·05	2·36	400
	57	7¾	3·75	8·48		201	7¾	1·08	2·41	
62	64	4¼	3·37	7·60	212	214	4¼	1·01	2·28	404
	59	7¾	3·64	8·20		209	7¾	1·03	2·33	
64	66	4¼	3·26	7·37	220	222	4¼	0·97	2·20	416
	61	7¾	3·51	7·93		217	7¾	1·00	2·24	
66	68	4¼	3·17	7·15	228	230	4¼	0·95	2·11	430
	63	7¾	3·41	7·68		225	7¾	0·96	2·16	
70	72	4¼	3·00	6·74	236	238	4¼	0·91	2·04	450
	67	7¾	3·20	7·22		233	7¾	0·93	2·09	
80	82	4¼	2·63	5·93	240	242	4¼	0·90	2·01	468
	77	7¾	2·79	6·29		237	7¾	0·91	2·05	
90	92	4¼	2·35	5·28	244	246	4¼	0·88	1·98	476
	87	7¾	2·47	5·57		241	7¾	0·89	2·01	
100	102	4¼	2·11	4·76	250	252	4¼	0·86	1·93	484
	97	7¾	2·22	4·99		247	7¾	0·87	1·97	
										500

MANCHESTER,
MARCH, 1885

Note: $4\frac{1}{4}'' = \cdot 345 ft.$
$7\frac{3}{4}'' = \cdot 646 ft.$

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Versed Sine for Chord of 12 feet	Versed Sine for Chord of 18 feet.
ins	ins
0·83 0·84	1·86 1·90
0·80 0·81	1·79 1·82
0·77 0·78	1·73 1·75
0·74 0·76	1·67 1·69
0·71 0 73	1·61 1·64
0·69 0·71	1·56 1·58
0·68 0·69	1·53 1·56
0·67 0·68	1·51 1·53
0·66 0·67	1·50 1·51
0·65 0·65	1·44 1·46
0·62 0·62	1·38 1·40
0·59 0·60	1·33 1·34
0·57 0·58	1·31 1·32
0·55 0·56	1·25 1·26
0·54 0·55	1·22 1·23
0·54 0·54	1·21 1·22
0·53 0·54	1·20 1·21
0·53 0·53	1·16 1·17
0·50 0·52	1·13 1·14
0·48 0·48	1·08 1·09
0·46 0·46	1·04 1·04
0·45 0·46	1·02 1·03
0·45 0·45	1·01 1·02
0·43 0·43	0 97 0 98